RECEIVED
CENTRAL FAX CENTER
AUG 08 2007

Gates & Cooper LLP
Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045

FAX TRANSMISSION TO USPTO

TO: Commissioner for Patents
Attn: Examiner Hussein A. El Chanti
Patent Examining Corps
Facsimile Center
Alexandria, VA 22313-1450

FROM: George H. Gates
OUR REF.: G&C 30566.197-US-01
TELEPHONE: (310) 642-4146

Total pages, including cover letter: 24

PTO FAX NUMBER: 571-273-8300

If you do NOT receive all of the pages, please telephone us at (310) 641-8797, or fax us at (310) 641-8798.

Title of Document Transmitted:	**TRANSMITTALS AND BRIEF OF APPELLANTS**
Applicant:	Marc Bolduc et al.
Serial No.:	09/928,598
Filed:	August 13, 2001
Group Art Unit:	2157
Title:	DISPLAYING IMAGE DATA
Our Ref. No.:	G&C 30566.197-US-01

Please charge all fees to Deposit Account No. 50-0494 of Gates & Cooper LLP.

By: _____
Name: George H. Gates
Reg. No.: 33,500

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on the date shown below.

_____
Signature

August 8, 2007
Date

GHG/cf

RECEIVED
CENTRAL FAX CENTER
AUG 08 2007

Due Date: August 9, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Marc Bolduc et al.	Examiner:	Hussein A. El Chanti
Serial No.:	09/928,598	Group Art Unit:	2157
Filed:	August 13, 2001	Docket:	G&C 30566.197-US-01
Title:	DISPLAYING IMAGE DATA		

CERTIFICATE OF MAILING OR TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being filed via facsimile transmission to the U.S. Patent and Trademark Office on August 8, 2007.

By: _____
Name: George H. Gates

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

We are transmitting herewith the attached:

☒ Transmittal sheet, in duplicate, containing a Certificate of Mailing or Transmission under 37 CFR 1.8.
☒ Brief of Appellant(s).
☒ Charge the Fee for the Brief of Appellant(s) in the amount of $500.00 to the Deposit Account.

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate.

Please charge all fees to Deposit Account No. 50-0494 of Gates & Cooper LLP. A duplicate of this paper is enclosed.

Customer Number 55895

GATES & COOPER LLP
Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, CA 90045
(310) 641-8797

By: _____
Name: George H. Gates
Reg. No.: 33,500
GHG/cf

RECEIVED
CENTRAL FAX CENTER
AUG 0 8 2007

Due Date: August 8, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	
Inventor: Marc Bolduc et al.	Examiner: Hussein A. El Chanti
Serial #: 09/928,598	Group Art Unit: 2157
Filed: August 13, 2001	Appeal No.: _____
Title: DISPLAYING IMAGE DATA	

BRIEF OF APPELLANTS

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR §41.37, Appellants' attorney hereby submits the Brief of Appellants in the appeal from the final rejection in the above-identified application, as set forth in the Office Action dated March 9, 2007.

Please charge the amount of $500.00 to cover the required fee for filing this Appeal Brief as set forth under 37 CFR §41.37(a)(2) and 37 CFR §41.20(b)(2) to Deposit Account No. 50-0494 of Gates & Cooper LLP.

Also, please charge any additional fees or credit any overpayments to Deposit Account No. 50-0494 of Gates & Cooper LLP.

I. REAL PARTY IN INTEREST

The real party in interest is Autodesk, Inc., the assignee of the present application.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences for the above-referenced patent application.

08/09/2007 HDEMESS1 00000067 500494 09928598
01 FC:1402 500.00 DA

III. STATUS OF CLAIMS

Claims 1-30 are pending in the application.

Claims 1-30 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,600,373 (Chui).

Claims 1-30 are being appealed.

IV. STATUS OF AMENDMENTS

No amendments to the claims have been made subsequent to the final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Generally, Appellants' invention, as recited in independent claims 1, 8, 11, 18, 21, and 28, is generally directed to an invention for viewing image data. Each of these claims is explained in more detail below.

Independent claim 1 recites an apparatus (101) for viewing image data. (See paragraphs [0026]-[0029] referring to 101 in FIG. 1). The apparatus (101) includes display means (103). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 103 in FIG. 1.) The apparatus (101) also includes network connecting means for transferring frames of the image data over a network (106) from a remotely connected frame source (109). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 106 and 109 in FIG. 1.) The image data comprises a plurality of image frames and has a frame rate from which may be inferred a correct time for display of each frame in a sequence of frames in the image data. (See paragraphs [0011], [0026], [0034] and [0045].) The frame source (109) returns a frame in response to a frame request issued over the network (106). (See paragraphs [0026]-[0029] referring to 106 and 109 in FIG. 1.) The apparatus (101) includes processing means (102) configured to play a clip by: (i) displaying selected frames from the frame source (109), on the display means (103), at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in the frame sequence in response to an indication of the data transfer rate of the network (106), so that a loss of network (106) bandwidth availability results in a degradation in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold. (This claim element is a means plus function element, and the structures and acts

described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 102, 103, 106 and 109 in FIG. 1; paragraphs [0032]-[0034] referring to FIG. 3; paragraphs [0040]-[0043] referring to FIG. 6; paragraphs [0044]-[0046] referring to FIG. 7; paragraphs [0047]-[0053] referring to FIG. 8; and paragraph [0067] referring to FIG. 13.)

Independent claim 8 recites an apparatus (101) for displaying image data. (See paragraphs [0026]-[0029] referring to 101 in FIG. 1). The image data comprises a plurality of image frames, sequences of the frames being organised into clips, each clip having a frame rate, and each frame in a clip thereby having a correct time for display with respect to a start time for playing the clip and based on the frame rate. (See paragraphs [0011], [0026], [0034] and [0045].) The apparatus (101) includes display means (103). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 103 in FIG. 1.) The apparatus (101) includes memory means (406). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 101 in FIG. 1; paragraphs [0035]-[0036 referring to 406 in FIG. 4; and paragraphs [0038]-[0039] referring to 406 in FIG. 5.) The apparatus (101) includes network connecting means for enabling transfer of image data over a network (106) from a frame source (109) remotely connected to the network (106). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 106 and 109 in FIG. 1.) The apparatus (101) includes processing means (102) configured to play a clip from the frame source (109) by: (i) selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of the network (106); (ii) preloading a frame from the frame source (109) into a frame queue (505) in the memory means (406); (iii) displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip; (iv) processing elapsed real time since the clip started playing with a frame timing parameter; and (v) updating the number of frames to skip in response to the processing of elapsed real time. (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 102, 103, 106 and 109 in FIG. 1; paragraphs [0032]-[0034] referring to FIG. 3; paragraphs [0040]-[0043] referring to FIG. 6; paragraphs [0044]-[0046] referring to FIG. 7; paragraphs [0047]-[0053] referring to FIG. 8; and paragraph [0067] referring to FIG. 13.)

Independent claim 11 recites a method of displaying image data on an image viewing station (101). (See paragraphs [0026]-[0029] referring to 101 in FIG. 1). The image viewing station (101) includes display means (103), processing means (102), and network connecting means for transferring frames of the image data over a network (106) from a remotely connected frame source (109). (This claim element recites means plus function elements, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 101, 102, 103, 106 and 109 in FIG. 1.) The image data comprises a plurality of image frames, and has a frame rate from which may be inferred a correct time for display of each frame in a sequence of frames in the image data. (See paragraphs [0011], [0026], [0034] and [0045].) The frame source (109) returns a frame in response to a frame request issued over the network (106). (See paragraphs [0026]-[0029] referring to 106 and 109 in FIG. 1.) The processing means (102) is configured to play a clip in which the method comprises: (i) displaying selected frames from the frame source (109), on the display means (103), at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in the frame sequence in response to an indication of the data transfer rate of the network (106), so that a loss of network (106) bandwidth availability results in a degradation in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold. (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 102, 103, 106 and 109 in FIG. 1; paragraphs [0032]-[0034] referring to FIG. 3; paragraphs [0040]-[0043] referring to FIG. 6; paragraphs [0044]-[0046] referring to FIG. 7; paragraphs [0047]-[0053] referring to FIG. 8; and paragraph [0067] referring to FIG. 13.)

Independent claim 18 recites a method for displaying image data on an image viewing station (101) that comprises display means (103), processing means (102), memory means (406) and network connecting means for enabling transfer of image data over a network (106) from a frame source (109) remotely connected to the network (106). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 101, 102, 103, 106 and 109 in FIG. 1; paragraphs [0035]-[0036] referring to 406 in FIG. 4; paragraphs [0038]-[0039] referring to 406 in FIG. 5.) The image data comprises a plurality of image frames, sequences of the frames being organised into clips, each clip having a frame rate, and each frame in a clip thereby having a correct time for display with respect to a start time for playing the clip and based on the frame rate. (See

paragraphs [0011], [0026], [0034] and [0045].) The processing means (102) is configured to perform operations to play a clip from the frame source (109) by a method comprising: (a) selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of the network (106); (b) preloading a frame from the frame source (109) into a frame queue (505) in the memory means (406); (c) displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip; (d) processing elapsed real time since the clip started playing with a frame timing parameter; and (e) updating the number of frames to skip in response to the processing of elapsed real time. (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 102, 103, 106 and 109 in FIG. 1; paragraphs [0032]-[0034] referring to FIG. 3; paragraphs [0035]-[0036] referring to 406 in FIG. 4; paragraphs [0038]-[0039] referring to 406 and 505 in FIG. 5; paragraphs [0040]-[0043] referring to FIG. 6; paragraphs [0044]-[0046] referring to FIG. 7; paragraphs [0047]-[0053] referring to FIG. 8; and paragraph [0067] referring to FIG. 13.)

Independent claim 21 recites a data structure upon a machine readable medium (111), comprising instructions for controlling an image viewing system (101) to perform a method for viewing image data. (See paragraphs [0026]-[0029] referring to 101 in FIG. 1; and paragraphs [0028]-[0029] referring to FIG. 2). The system (101) includes display means (103), processing means (102) and network connecting means for transferring frames of image data over a network (106) from a remotely connected frame source (109). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 101, 102, 103, 106 and 109 in FIG. 1; paragraphs [0035]-[0036] referring to 406 in FIG. 4; paragraphs [0038]-[0039] referring to 406 in FIG. 5.) The image data comprises a plurality of image frames, and has a frame rate from which may be inferred a correct time for display of each frame in a sequence of frames in the image data. (See paragraphs [0011], [0026], [0034] and [0045].) The frame source (109) returns a frame in response to a frame request issued over the network (106). (See paragraphs [0026]-[0029] referring to 106 and 109 in FIG. 1.) The processing means (102) are configurable by the instructions to play a clip in which the method includes: displaying selected frames from the frame source (109), on the display means (103), at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in the frame sequence in response to an indication of the data transfer rate of the network (106), so that a loss of network (106) bandwidth availability results in a degradation

in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold. (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 102, 103, 106 and 109 in FIG. 1; paragraphs [0032]-[0034] referring to FIG. 3; paragraphs [0040]-[0043] referring to FIG. 6; paragraphs [0044]-[0046] referring to FIG. 7; paragraphs [0047]-[0053] referring to FIG. 8; and paragraph [0067] referring to FIG. 13.)

Independent claim 28 recites a data structure upon a machine readable medium (111), comprising instructions for controlling an image viewing system (101) to perform a method for viewing image data. (See paragraphs [0026]-[0029] referring to 101 in FIG. 1; and paragraphs [0028]-[0029] referring to FIG. 2). The image viewing system (101) includes display means (103), processing means (102), memory means (406) and network connecting means for enabling transfer of image data over a network (106) from a frame source (109) remotely connected to the network (106). (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 101, 102, 103, 106 and 109 in FIG. 1; paragraphs [0035]-[0036] referring to 406 in FIG. 4; paragraphs [0038]-[0039] referring to 406 in FIG. 5.) The image data comprises a plurality of image frames, sequences of the frames being organised into clips, each clip having a frame rate, and each frame in a clip thereby having a correct time for display with respect to a start time for playing the clip and based on the frame rate. (See paragraphs [0011], [0026], [0034] and [0045].) The processing means (102) is configurable to perform operations to play a clip from the frame source (109) by a method comprising: (a) selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of the network (106); (b) preloading a frame from the frame source (109) into a frame queue (505) in the memory means (406); (c) displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip; (d) processing elapsed real time since the clip started playing with a frame timing parameter; and (e) updating the number of frames to skip in response to the processing of elapsed real time. (This claim element is a means plus function element, and the structures and acts described in the specification corresponding to this function are found in the specification at paragraphs [0026]-[0029] referring to 102, 103, 106 and 109 in FIG. 1; paragraphs [0032]-[0034] referring to FIG. 3; paragraphs [0035]-[0036] referring to 406 in FIG. 4; paragraphs [0038]-[0039] referring to 406 and 505 in FIG. 5; paragraphs [0040]-[0043] referring to FIG. 6; paragraphs [0044]-[0046] referring to FIG. 7; paragraphs [0047]-[0053] referring to FIG. 8; and

paragraph [0067] referring to FIG. 13.)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1-30 are anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 5,600,373 to Chui.

VII. ARGUMENT

A. The Office Action Rejections

In sections (1)-(3) of the Office Action, claims 1-30 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,600,73 (Chui).

Appellants' attorney respectfully traverses the rejections, and asserts that the Appellants' invention is patentable over the reference because the claims recite limitations not shown by the reference.

B. Arguments Directed To The First Grounds for Rejection: Whether Claims 1-30 Are Anticipated Under 35 U.S.C. §102(b) by U.S. Patent No. 5,600,73 (Chui).

1. Independent Claims 1, 8, 11, 18, 21 and 28

In rejecting Appellants' independent claims 1, 8, 11, 18, 21 and 28, the Office Action asserts the following:

> 2. Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Chui et al., U.S. Patent No. 5,600,373 (referred to hereafter as Chui).
>
> As to claims 1, 8, 11, 18, 21 and 28, Chui teaches apparatus, method for viewing image data, comprising:
>
> (a) display means (see col. 29 lines 40-55);
>
> (b) network connecting means for transferring frames of said image data over a network from a remotely connected frame source, wherein: (i) said image data comprises a plurality of image frames and has a frame rate from which may be inferred a due time for display of each frame in a sequence of frames in said image data; (ii) said frame source returns a frame in response to a frame request issued over said network (see col. 29 lines 40-55, the frames are displayed according to a sequence); and
>
> (c) processing means configured to play a clip by:
>
> (i) displaying selected frames from said frame source, on said display means, at their due time by skipping frames in said frame sequence in response to an indication of the data transfer rate of said network so that a loss of the network bandwidth availability results in degradation in smoothness of the clip, not a

modification of the rate at which recorded events in the clip unfold (see col. 29 lines 40-55, video is displayed in real time, some frames are skipped).

In addition, the Office Action states the following:

> Response to Arguments
>
> 3. Applicant's arguments have been fully considered but are not persuasive. Applicant argues in substance that Chui does not disclose "skipping frames in said frame sequence in response to an indication of the data transfer rate of said network".
>
> In response, Chui teaches a system and method for decompressing and displaying video frames to a user. Chui teaches the compressor 16 is intended to support the compression of high definition real-time true color video image data, where "true color" indicates the use of twenty-four bits of color information for each pixel, resulting in 16.7 million possible colors. The frame rate for compressor 16 is intended to be on the order of thirty frames per second, so as to support "real-time" video image compression (see col. 18. lines 19-25). In addition, decompressor 18 is intended to support the compression of high definition real-time true color video image data, where "true color" indicates the use of twenty-four bits of color information for each pixel, resulting in 16.7 million possible colors. The decompression rate for decompressor 18 is intended to be on the order of thirty frames per second, so as to support "real-time" video image decompression and display. As noted above, if the color and frame rate requirements are reduced from real-time true color video, it may be possible to implement decompressor 18 as a single channel, i.e. with a single channel compression subsystem 88. In this implementation, color data could be decompressed sequentially for the R, G and B components under the control of main controller 84. In addition, if the frame rate permits, digital matrix processor 86 may be used to perform the lossless decompression, as well (see col. 32 lines 24-39).
>
> Therefore the compression and the decompression of the frames is based on the rate at which the decompressor and the compressor operate. If the decompressor is not capable of decompressing the frames on time i.e. the decompressor is not fast enough to decompress the frame, then the frame is skipped. The rate of the network is dependent on the rate at which the decompressor operate (see col. 29 lines 40-55). Therefore, skipping frames based on the rate of the decompressor taught by Chui meets the scope of the claimed limitation disclose "skipping frames in said frame sequence in response to an indication of the data transfer rate of said network.

Appellants' attorney disagrees with this analysis.

Consider the portions of Chui cited by the Office Action as teaching all the elements of the independent claims 1, 8, 11, 18, 21 and 28, which are set forth below:

> Chui: Col. 29, lines 40-55
>
> This arrangement of frame 70 is particularly useful in the interactive decompression and display of a sequence of video frames. Specifically, fields 74, 75 and 76 enable decompressor 20 to flexibly display the frames in the sequence,

especially in the case where the sequence of frames 70 are sequential frames in a motion picture. For example, decompressor 20 can interrogate field 76 to determine if the processing capacity of decompressor 20 and its display system 26 is such that every frame in the sequence cannot be decompressed and displayed in real time; if so, decompressor 20 can skip to the next frame 70 in the sequence indicated by the contents of field 75 in frame 70. While the quality of the displayed motion picture will be reduced from the best possible images when frames are skipped, those frames that are not skipped are displayed in real-time, so that the time-dependence of the motion in the motion picture is accurately conveyed.

Consider also that the definitions of fields 74, 75 and 76 can be found in Chui at col. 28, lines 22-43, which are set forth below:

Chui: Col. 28, lines 22-43

Fields 74 and 75 then follow in frame 70 according to this example, to facilitate control of the display of the video sequence containing frame 70. Field 74 is a four-byte field of long integer type which contains the address at which the previous frame in the sequence begins, enabling rapid jumping back to the previous frame as desired. As will be described hereinbelow, a user control interface may be provided with decompressor system 20 to allow interactive control of the display of the video sequence, in which case field 74 will facilitate the skipping and selection of individual frames in reverse order. Similarly, field 75 is a four-byte field of long integer type which contains the address of the next frame in the sequence, allowing rapid skipping of frames 70 in the forward direction during decompression and display.

Field 76 is a two-byte field of integer type that indicates the complexity of the image contained within frame 70, by specification of compression ratio, quality index, or a user-defined specification of the image, such values useful in measuring and controlling the performance of the decompression and display.

Appellants' attorney respectfully submits that the above portions of Chui merely describe a decompressor interrogating a field in a frame that indicates the complexity of the image contained within the frame to determine if the processing capacity of decompressor and its display system is such that every frame in the sequence cannot be decompressed and displayed in real time, and then skipping to a next frame in the sequence.

However, nothing in the above portions of Chui teach or suggest skipping frames on the basis of network bandwidth availability.

Specifically, Chui does not teach or suggest the limitations of Appellants' independent claims 1, 11 and 21 directed to displaying selected frames from said frame source, on said display means, at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in said frame sequence in response to an indication of the data transfer rate of said

network, so that a loss of network bandwidth availability results in a degradation in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold.

In addition, Chui does not teach or suggest the limitations of Appellants' independent claims 8, 18 and 28 directed to selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of said network, preloading a frame from said frame source into a frame queue in said memory means, displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip, processing elapsed real time since the clip started playing with a frame timing parameter, and updating the number of frames to skip in response to said processing of elapsed real time.

Indeed, nothing in Chui relates to skipping frames on the basis of network bandwidth availability. As a result, Chui does not teach or suggest all the elements of Appellants' claimed invention. Moreover, the various elements of Appellants' claimed invention together provide operational advantages over Chui. In addition, Appellants' invention solves problems not recognized by Chui.

Thus, Appellants' attorney submit that independent claims 1, 8, 11, 18, 21 and 28 are allowable over Chui. Further, dependent claims 2-7, 9-10, 12-17, 19-20, 22-27, 29 and 30 are submitted to be allowable over Chui in the same manner, because they are dependent on independent claims 1, 8, 11, 18, 21 and 28, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-7, 9-10, 12-17, 19-20, 22-27, 29 and 30 recite additional novel elements not shown by Chui.

2. Claims 2, 12 and 22

Claims 2, 12 and 22 recite that the indication of the data transfer rate is provided by a comparison of the relative position of an input and an output pointer in a queue of frames that have been selected for display. The Office Action rejects these claims on the basis of Chui at col. 29, lines 57-67. Appellant's attorney disagrees, and submits that the cited portions of the reference, which are set forth below, do not teach or suggest the limitations of these claims:

> Chui: Col. 29, lines 57-67
>
> Fields 74, 75, 76 also provide interactive display capability. As field 74 indicates the address of the previous frame in the sequence, frame 70 allows the capability of backwards display of a motion picture, whether for each frame 70 in the sequence or with frames skipped as described above based on the time required for decompression and the capability of decompressor 18. In addition, the information

provided by field 76 facilitates the synchronization of the display of the sequence of frames 70, and also allows for easy scaling of the time base to provide slow-motion or enhanced-speed display.

Appellants' attorney respectfully submits that the above portions of Chui merely describe a field in the frame that indicates the address of the previous frame in the sequence, in order to allow frames to be skipped in sequence. However, nothing in the above portions of Chui teach or suggest a comparison of the relative position of an input and an output pointer in a queue of frames to provide an indication of the data transfer rate.

3. Claims 3, 13 and 23

Claims 3, 13 and 23 recite that the frame source includes means for storing pre-rendered image frames. Appellant's attorney submits that these claims stand or fall with claims 1, 11 and 21, respectively.

4. Claims 4, 14 and 24

Claims 4, 14 and 24 recite that the frames are skipped in response to a prediction of a network data transfer rate. The Office Action rejects these claims on the basis of Chui at col. 29, lines 57-67. Appellant's attorney disagrees, and submits that the cited portions of the reference, which are set forth below, do not teach or suggest the limitations of these claims:

Chui: Col. 29, lines 57-67

Fields 74, 75, 76 also provide interactive display capability. As field 74 indicates the address of the previous frame in the sequence, frame 70 allows the capability of backwards display of a motion picture, whether for each frame 70 in the sequence or with frames skipped as described above based on the time required for decompression and the capability of decompressor 18. In addition, the information provided by field 76 facilitates the synchronization of the display of the sequence of frames 70, and also allows for easy scaling of the time base to provide slow-motion or enhanced-speed display.

Appellants' attorney respectfully submits that the above portions of Chui merely describe a field in the frame that indicates the address of the previous frame in the sequence, in order to allow frames to be skipped in sequence. However, nothing in the above portions of Chui teach or suggest that the frames are skipped in response to a prediction of a network data transfer rate.

5. Claims 5, 15 and 25

Claims 5, 15 and 25 recite that frames are prefetched into a frame queue prior to their due time. Appellant's attorney submits that these claims stand or fall with claims 1, 11 and 21, respectively.

6. Claims 6, 16 and 26

Claims 6, 16 and 26 recite that a frame skip rate is defined by a user. Appellant's attorney submits that these claims stand or fall with claims 1, 11 and 21, respectively.

7. Claims 7, 17 and 27

Claims 7, 17 and 27 recite that a frame is selected for display by processing its due time with elapsed real time since playback started. The Office Action rejects these claims on the basis of Chui at col. 27, lines 52-67. Appellant's attorney disagrees, and submits that the cited portions of the reference, which are set forth below, do not teach or suggest the limitations of these claims:

> Chui: Col. 27, lines 52-67
>
> As illustrated in FIG. 14, frame 70 is a sequential block of data formatted for a storage device such as computer memory, disk storage, CD-ROM and the like. It is therefore contemplated that, in order to take advantage of all of the features of the present invention, compressed data frames 70 will be stored in a computer memory prior to its decompression, rather than decompressed in a real-time manner as received over digital network 15. Real-time decompression and display may alternatively be performed as the data is received, but certain ones of the features described hereinbelow will not be as useful in such a case. Since the extraction of the header information from frame 70 requires extremely little computing time and effort, inclusion of this header information will have substantially no penalty in the overall performance of the real time decompression and display.

Appellants' attorney respectfully submits that the above portions of Chui merely describe when real-time decompression is performed. However, nothing in the above portions of Chui teach or suggest that a frame is selected for display by processing its due time with elapsed real time since playback started.

8. Claims 9, 19 and 29

Claims 9, 19 and 29 recite that the frame timing parameter is the due time for a frame. Appellant's attorney submits that these claims stand or fall with claims 8, 18 and 28, respectively.

9. Claims 10, 20 and 30

Claims 10, 20 and 30 recite that the instructions for the processing means are executed as multiple threads. Appellant's attorney submits that these claims stand or fall with claims 8, 18 and 28, respectively.

VIII. CONCLUSION

In light of the above arguments, Appellants' attorney respectfully submits that the cited references do not anticipate nor render obvious the claimed invention. More specifically, Appellants' claims recite novel aspects that patentably distinguish over any and all references under 35 U.S.C. §§ 102 and 103.

As a result, a decision by the Board of Patent Appeals and Interferences reversing the Examiner and directing allowance of the pending claims in the subject application is respectfully solicited.

Respectfully submitted,

GATES & COOPER LLP
Attorneys for Appellants

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: August 8, 2007

By: _____
Name: George H. Gates
Reg. No.: 33,500

GHG/

RECEIVED
CENTRAL FAX CENTER
AUG 08 2007

CLAIMS APPENDIX

1. Apparatus for viewing image data, comprising:

(a) display means;

(b) network connecting means for transferring frames of said image data over a network from a remotely connected frame source, wherein:

(i) said image data comprises a plurality of image frames and has a frame rate from which may be inferred a correct time for display of each frame in a sequence of frames in said image data;

(ii) said frame source returns a frame in response to a frame request issued over said network; and

(c) processing means configured to play a clip by:

(i) displaying selected frames from said frame source, on said display means, at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in said frame sequence in response to an indication of the data transfer rate of said network, so that a loss of network bandwidth availability results in a degradation in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold.

2. Apparatus according to claim 1, wherein said indication of the data transfer rate is provided by a comparison of the relative position of an input and an output pointer in a queue of frames that have been selected for display.

3. Apparatus according to claim 1, wherein said frame source includes means for storing pre-rendered image frames.

4. Apparatus according to claim 1, wherein said frames are skipped in response to a prediction of a network data transfer rate.

5. Apparatus according to claim 1, wherein frames are prefetched into a frame queue prior to their due time.

6. Apparatus according to claim 1, wherein a frame skip rate is defined by a user.

7. Apparatus according to claim 1, wherein a frame is selected for display by processing its due time with elapsed real time since playback started.

8. Apparatus for displaying image data, comprising:

(a) image data comprising a plurality of image frames, sequences of said frames being organised into clips, each clip having a frame rate, and each frame in a clip thereby having a correct time for display with respect to a start time for playing the clip and based on the frame rate;

(b) display means;

(c) memory means;

(d) network connecting means for enabling transfer of image data over a network from a frame source remotely connected to said network; and

(e) processing means configured to perform operations to play a clip from said frame source by:

(i) selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of said network;

(ii) preloading a frame from said frame source into a frame queue in said memory means;

(iii) displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip;

(iv) processing elapsed real time since the clip started playing with a frame timing parameter; and

(v) updating the number of frames to skip in response to said processing of elapsed real time.

9. Apparatus according to claim 8, wherein said frame timing parameter is the due time for a frame.

10. Apparatus according to claim 8, wherein instructions for the processing means are executed as multiple threads.

11. A method of displaying image data on an image viewing station, wherein:

(a) the image viewing station comprises display means, processing means, and network connecting means for transferring frames of said image data over a network from a remotely connected frame source;

(b) said image data comprises a plurality of image frames, and has a frame rate from which may be inferred a correct time for display of each frame in a sequence of frames in said image data;

(c) said frame source returns a frame in response to a frame request issued over said network; and

(d) said processing means is configured to play a clip in which said method comprises:

(i) displaying selected frames from said frame source, on said display means, at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in said frame sequence in response to an indication of the data transfer rate of said network, so that a loss of network bandwidth availability results in a degradation in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold.

12. A method according to claim 11, wherein said indication of the data transfer rate is provided by a comparison of the relative position of an input and an output pointer in a queue of frames that have been selected for display.

13. A method according to claim 11, wherein said
frame source includes means for storing pre-rendered image frames.

14. A method according to claim 11, wherein said frames are skipped in response to a prediction of a network data transfer rate.

15. A method according to claim 11, wherein frames are prefetched into a frame queue prior to their due time.

16. A method according to claim 11, wherein a frame skip rate is defined by a user.

17. A method according to claim 11, wherein a frame is selected for display by processing its due time with elapsed real time since playback started.

18. A method for displaying image data on an image viewing station that comprises display means, processing means, memory means and network connecting means for enabling transfer of image data over a network from a frame source remotely connected to said network, wherein:

said image data comprises a plurality of image frames, sequences of said frames being organised into clips, each clip having a frame rate, and each frame in a clip thereby having a correct time for display with respect to a start time for playing the clip and based on the frame rate;

said processing means is configured to perform operations to play a clip from said frame source by a method comprising:

(a) selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of said network;

(b) preloading a frame from said frame source into a frame queue in said memory means;

(c) displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip;

(d) processing elapsed real time since the clip started playing with a frame timing parameter; and

(e) updating the number of frames to skip in response to said processing of elapsed real time.

19. A method according to claim 18, wherein said frame timing parameter is the due time for a frame.

20. A method according to claim 18, wherein instructions for the processing means are executed as multiple threads.

21. A data structure upon a machine readable medium, comprising instructions for controlling an image viewing system to perform a method for viewing image data, said viewing system comprising:

display means, processing means and network connecting means for transferring frames of said image data over a network from a remotely connected frame source;

said image data comprising a plurality of image frames, and has a frame rate from which may be inferred a correct time for display of each frame in a sequence of frames in said image data;

said frame source returns a frame in response to a frame request issued over said network; wherein

said processing means being configurable by said instructions to play a clip in which said method includes:

displaying selected frames from said frame source, on said display means, at their correct time based on the frame rate in order to maintain timing integrity of the clip by skipping frames in said frame sequence in response to an indication of the data transfer rate of said network, so that a loss of network bandwidth availability results in a degradation in smoothness of the clip, not a modification of the rate at which recorded events in the clip unfold.

22. A data structure according to claim 21, wherein said indication of the data transfer rate is provided by a comparison of the relative position of an input and an output pointer in a queue of frames that have been selected for display.

23. A data structure according to claim 21, wherein said frame source includes means for storing pre-rendered image frames.

24. A data structure according to claim 21, wherein said frames are skipped in response to a prediction of a network data transfer rate.

25. A data structure according to claim 21, wherein frames are prefetched into a frame queue prior to their due time.

26. A data structure according to claim 21, wherein a frame skip rate is defined by a user.

27. A data structure according to claim 21, wherein a frame is selected for display by processing its due time with elapsed real time since playback started.

28. A data structure upon a machine readable medium, comprising instructions for controlling an image viewing system to perform a method for viewing image data, said viewing system comprising:

display means, processing means, memory means and network connecting means for enabling transfer of image data over a network from a frame source remotely connected to said network, in which:

said image data comprises a plurality of image frames, sequences of said frames being organised into clips, each clip having a frame rate, and each frame in a clip thereby having a correct time for display with respect to a start time for playing the clip and based on the frame rate; wherein

said processing means is configured to perform operations to play a clip from said frame source by a method comprising:

(a) selecting a next frame for preloading by skipping at least one frame in the clip's frame sequence in response to an indication of the data transfer rate of said network;

(b) preloading a frame from said frame source into a frame queue in said memory means;

(c) displaying a preloaded frame at its correct time based on the frame rate in order to maintain timing integrity of the clip;

(d) processing elapsed real time since the clip started playing with a frame timing parameter; and

(e) updating the number of frames to skip in response to said processing of elapsed real time.

29. A data structure according to claim 28, wherein said frame timing parameter is the due time for a frame.

30. A data structure according to claim 28, wherein instructions for steps (a) to (e) will be executed as multiple threads.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.